


5. As time goes on, keep oxygen available to the compost critters by fluffing the pile with a hoe or compost turning tool each time you add material. A complete turning of the pile — so the top becomes the bottom — in spring and fall should result in finished compost within a year. More frequent turning will shorten the composting time.

High Nitrogen "Green" Ingredients	High Carbon "Brown" Ingredients
<ul style="list-style-type: none"> • Alfalfa Hay/Meal • Grass Clippings • Blood Meal • Manure (cow, horse, chicken, rabbit) • Food Wastes (fruit & vegetables, coffee grounds, tea bags, egg shells) • Seaweed 	<ul style="list-style-type: none"> • Autumn Leaves • Cornstalks • Straw • Pine Needles • Paper/Cardboard • Wood chips • Saw Dust

Where to Get More Information

In cooperation with the Massachusetts DEP, the State of Connecticut has produced a video entitled *Turning Your Spoils to Soils*, which is available in most local libraries in Massachusetts. DEP's Solid Waste Management Program also provides technical assistance and reference materials on composting, and can be reached at (617) 292-5834.

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Graphics courtesy of the Massachusetts Audubon Society and Seattle Solid Waste Utility.

Turn spoils

Home Composting

A guide for composting yard and food waste

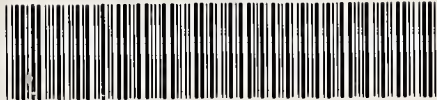


The Commonwealth of Massachusetts

Executive Office of Environmental Affairs

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What is Composting?

Composting is a controlled process of decomposition of organic material. Naturally occurring soil organisms recycle nitrogen, potash, phosphorus, and other plant nutrients as they convert the material into humus.

Benefits of Composting

Composting is a convenient, beneficial and inexpensive way to handle your organic waste and help the environment. Composting:

- ◆ reduces the volume of garbage requiring disposal;
- ◆ saves money for you and your community in reduced soil purchases and reduced local disposal costs; and
- ◆ enriches the soil. Using compost adds essential nutrients, improves soil structure, which allows better root growth, and increases moisture and nutrient retention in the soil. Plants love compost!



What You Should Compost

Yard wastes such as leaves, grass clippings and weeds make excellent compost. Fruit and vegetable scraps, plus food wastes such as coffee grounds, tea bags, and eggshells, can be composted. To keep animals and odors out of your pile, do not add meat, bones, fatty food wastes (such as cheese, grease and oils), dog and cat litter, and diseased plants. Do not add invasive weeds and weeds that have gone to seed to the pile.

Elements of a Good Compost Pile

With these principles in mind, you can convert your organic wastes into resources by turning your spoils to soil.

The Biodegraders

Nature has provided an army of workers who specialize in decomposing organic material. These "critters" — bacteria, fungi, molds, earthworms, insects and other soil organisms — eat all types of organic material and in the process convert nutrients into a form plants can utilize. Without those compost critters, we would be surrounded by mountains of leaves and the soil would be barren. The process of composting is simply a matter of providing the soil organisms with food, water and oxygen. They do the rest.

Organic Material

Organic material contains varying amounts of carbon and nitrogen which nourish the organisms naturally present in your compost pile. (Billions of bacteria inhabit the surface of every leaf and blade of grass in your yard.) The critters need both carbon and nitrogen. An easy way to provide both of these is to remember that brown, woody

materials, such as autumn leaves, are high in carbon while green, moist materials, such as grass clippings, are high in nitrogen (refer to the table on the back of this brochure).

Alternating layers of brown and green materials will yield finished compost in three to eight months. Leaves alone break down in six to 15 months. Grass clippings or food scraps composted alone result in unpleasant odors because they contain more nitrogen than the compost organisms can use. Layer leaves or straw with green material, or let it dry until it turns brown before composting it alone.

Air

The compost critters need oxygen, just as we do. Lack of oxygen will slow down the composting process and cause odors. Turn your pile, fluff it with a hoe or compost turning tool, or build air passages into the pile with cornstalks to provide oxygen to the organisms.

Moisture

Compost organisms need a moist environment. The pile should be as damp as a wrung-out sponge, but not dripping wet. Make sure leaves are damp when you add them to the compost pile because they will not break down if they are dry. Since moisture evaporates as the pile heats up (a sign of active composting), let rain and snow replace it, or add water during dry spells. A cover helps retain moisture in hot weather.

How to Use Compost

When the composted materials look like rich, brown soil, it is ready to use. Apply one-half to three inches of finished compost and mix it in with the top four inches of soil about one month before planting. Compost can be applied as a top dressing in the garden throughout the summer. Compost is

excellent for reseeded lawns, and it can be spread one-quarter inch deep over the entire lawn to rejuvenate the turf. To make potting soil, mix equal parts compost, sand and loam. You may put the compost through a sieve to remove large particles – these can go back into the pile.

Mulching



Grass clippings, leaves and woody yard wastes can be used as mulch in gardens and around shrubs to keep the soil moist, control weed growth and add

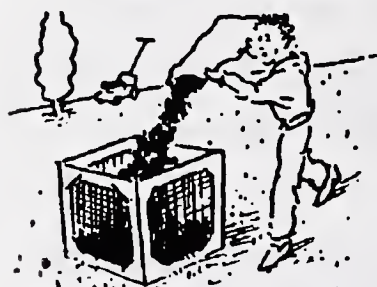
nutrients. Woody materials should be chipped or shredded. Use a mulch of pine needles around acid-loving plants. Leaves will work first as mulch, then as a soil enricher as they decompose. Grass clippings should be dried before using as mulch. Do not mulch with grass clippings which have been treated with herbicides; composting them first, however, will break down the herbicides.

Composting Without a Yard

Composting can be done indoors using an earthworm farm. Not only can you recycle your food scraps, you can also have a steady supply of fishing bait! For more information call DEP's Solid Waste Management Program.

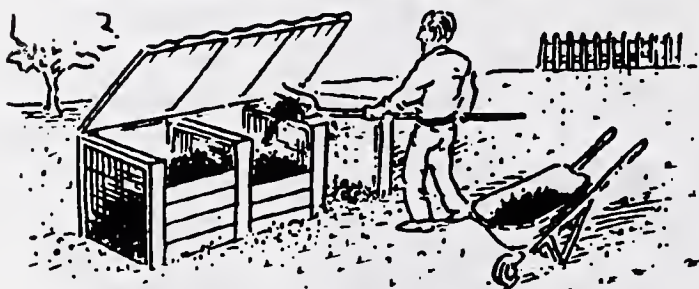
Composting Bins

Holding Bins



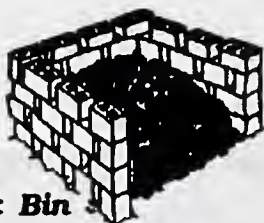
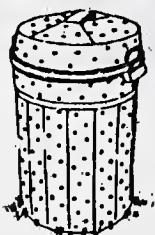
These portable containers are the simplest way to compost. Turning is optional.

Turning Bins



A series of three or more bins allows you to make compost in a short time by turning the materials on a regular schedule.

Barrel Bin *These bins can easily be made from plastic garbage cans.*

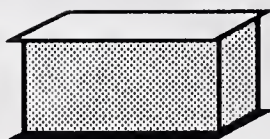


Block Bin



Wire Bin

Block bins and wire bins can also be made for composting.



Earthworm Bin

How To Make a Compost Pile

There are as many different ways to make compost as there are people who do it. The following guidelines will get you started, but soon your own experience will help you tailor a method that best fits your needs.

1. Build or purchase a compost bin. Enclosed compost piles keep out pests, hold heat and moisture in, and have a neat appearance. Check to see if your community has a composting bin distribution program, or order from a garden catalogue, nursery or hardware store. Or, bins can be simply made of wire, wood, pallets, concrete blocks, even garbage cans with drainage holes drilled in them. In urban areas, rodent-resistant compost bins — having a secure cover and floor and openings no wider than one-half inch — must be used.

2. Set up the bin in a convenient, shady area with good drainage. A pile that is about three feet square and three feet high will help maintain the heat generated by the composting organisms throughout the winter. Although a smaller pile may not retain heat, it will compost.

3. Start the pile with a layer of coarse material such as corn stalks to build in air passages. Add alternating layers of "brown" and "green" materials with a shovelful of soil on top of each layer. Shredding leaves or running over them with a lawn mower will shorten the composting time. Be sure to bury food scraps in the center of the pile.

4. Add water as you build the pile if the materials are dry.